

# METHOD AND STRUCTURE FOR ECONOMICAL HIGH DENSITY CHIP CARRIER

## ABSTRACT

A flip-chip joinable substrate having non-plated-on contact pads and a method for making the same. The substrate has an  
5 external metal foil layer upon a dielectric layer upon a  
patterned internal metal layer having an internal contact area.  
An area of the external metal foil layer above the internal  
contact area is selected. A microvia cavity extending to the  
internal contact area is perforated centrally within the selected  
10 area and is filled with a mass of conductive paste forming an  
external contact pad. The external contact pad is used as an  
etch mask for removing the adjacent external metal foil.